

REMARKS

Claims 1, 2 and 4-18 are pending. Claim 3 is canceled.

§ 103 Rejections

Claims 1-10, 17 and 18 stands rejected under 35 USC § 103(a) as being unpatentable over Tuschy et al. (WO 96/21413 a1) in view of Nguyen et al. (US 5,616,629 A) and Newman et al. (US 3,716,437).

The present invention relates to, in claim 1, an adhesive tape intended for use on a diaper or like articles where it is required that the tape be soft and gentle to the touch due to the fact that it is used adjacent a babies sensitive skin. The need is for a tape or tape laminate that is cloth-like.

A way to provide this type of cloth like feel is to use a fibrous tape backing and particularly a tape backing of thermoplastic fibers. The issue with these types of fibrous backings is that conventional thermoplastic pressure sensitive adhesives bond strongly to thermoplastic fibers and the tendency is that the adhesive causes the backing to delaminate or fibers are transferred to the adhesive contaminating the adhesive, which is reflected in a lowering of 90° peel adhesion. A high 90° peel adhesion is a property recited as recited in the claims.

The further problem is that thermoplastic nonwovens are porous allowing release coatings applied thereto to penetrate into the fibrous backing. This can also decrease the effectiveness of the release composition by taking it out of contact with the adhesive when it is in roll form which will result in an increase in the 90° Kiel adhesion (this is the adhesion of the nonwoven tape to itself when in a roll). It is important as such that the release composition be of sufficient viscosity such that it remains on the top of the fibrous thermoplastic nonwoven backing and does not migrate into the fibrous backing when applied. This is believed to be inherent in the recited low 90° Kiel adhesion value, but to clarify claim 1, this relatively high viscosity of the added organic compound has been placed into claim 1.

The applied reference Tuschy describes a closure tape laminate, where the backing is disclosed as possibly being a nonwoven, however the focus of Tuschy was not the backing but how to create a stable roll where a mechanical fastener (30) is provided on the adhesive face of the tape that is then rolled up into a roll format. The problem with this added mechanical fastener (30) provided on the adhesive face of the tape is that it acts as a spacer which tends to result in the adhesive (24) not coming into contact with the opposite face of the backing (21) when it is in a roll. This results in a tape laminate which in roll form can become unstable by telescoping or the like due to the lack of friction or adhesion between the release coated backing (21) and the mechanical fastener (30), which is the primary mode of contact between the release coated backside and the adhesive coated face of the tape laminate. Tuschy as such was not concerned with how to deal with the problem of too much adhesion between the adhesive (24) and the backing (21), in fact, his concern was in the exact opposite direction. Tuschy was concerned with the mechanical fastener lowering the adhesion or friction between the front and back of his tape laminate to a level where the tape laminate became unstable in roll form.

Applicants, in contrast to Tuschy, were concerned with too much adhesion where there is direct adhesion of a backing (21) to the adhesive layer (24) in the very special circumstance where the backing is a thermoplastic fibrous web.

The release composition teaching relied on Nguyen et al. also does not teach in the direction of applicant's claimed invention, but rather the opposite direction. Nguyen et al. wanted to increase the level of adhesion between their removable release liner and the adhesive of the covered PSA tape. This was to keep the liner from too readily removing during highspeed production processes. To do this, Nguyen et al. require that a tackifying material is added to a generic organopolysiloxanes described that are either ethylenically or epoxide functional. The tackifying materials used by Nguyen et al. are what is commonly termed MQ resins, their component B. Starting with Nguyen et al., to be able to achieve the release value required for the present tapes and tape laminates this MQ resin required by Nguyen et al. would need to be eliminated. Besides the teachings of Nguyen et al. this is also clearly evident by looking at applicants comparative examples (e.g. C3) in the case as filed. Applicant's comparative example C3 uses an organopolysiloxane exemplified by Nguyen et al. without an MQ resin. This Nguyen

et al organopolysiloxane by itself already has a 90° Kiel adhesion well above that required in applicant's claim. Nguyen et al adds MQ resin to this organopolysiloxane to increase the peel value for his release liners (Table 1 examples 6 and 7), which would only further increase the 90° Kiel adhesion in applicants claimed construction to even less desired values.

If one were to just take out the MQ resin from the example ethylinically functional organopolysiloxane compositions of Nguyen et al. (Tables I-IV) applicant's comparative examples as filed clearly demonstrate that one would not be in position with a release composition capable of solving the problems of the present invention. The two ethylinically functional organopolysiloxanes used in Nguyen et al. are RC-708 and RC-726 (Tables I – IV). These exact same two ethylinically functional organopolysiloxanes were found to be unacceptable in applicant's claimed construction. Nguyen et al exemplified RC-708 (Applicant's comparative example C3) created to high of a release (the adhesion of the adhesive to the release coated backing was too high) resulting in delamination of the nonwoven fibers in applicants claimed construction. RC-726 the only other ethylinically functional organopolysiloxane exemplified in Nguyen et al (applicant's comparative example C4) was a poorly curable composition by itself resulting in silicone transferring to the adhesive layer, detackifying the adhesive.

Nguyen et al. provides no teaching or suggestions on how to modify their organopolysiloxane per se to adjust the release values obtained. The only teaching is that above of adding in MQ resins to organopolysiloxanes to increase the release levels for a release liner. Nguyen et al. fails to teach anything about how to modify the organopolysiloxanes to raise or lower the release characteristics and create a composition that is properly curable and can be coated onto a thermoplastic fibrous backing.

The art applied simply fails to teach or suggest applicant's claimed invention. In fact the applied reference relating to contact of an adhesive tape to a release coated surface are both concerned with the exact opposite problem of too low a level of adhesion between an adhesive

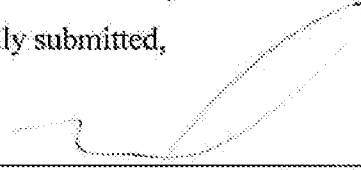
coated tape product and a release coated surface (the release liner in Nguyen et al. and the tape backing in Tuschy).

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested.

Allowance of claims 1, 2 and 4-18, as amended, at an early date is solicited.

Respectfully submitted,

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Date

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